

Abstract

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The invention is an architecture, a system and a method for monitoring data structures over an IEEE 1394-1995 serial bus network. The data structures are portions of entries that are posted and stored to a descriptor mechanism. Preferably, the entries are schedule entries posted and stored to an AV/C resource schedule bulletin board subunit. According to the invention, a resource request is submitted by a requesting control device to the AV/C resource schedule bulletin board subunit, where request data is stored and posted as a schedule entry. The requesting control device also submits a corresponding notify command data frame to the AV/C bulletin board subunit. The notify command frame instructs the bulletin board subunit to monitor a specified data structure within the schedule entry. Preferably, the notify command frame also specifies the type of access activity that is monitored. When a competing control device performs the specified type of access activity on the specified data structure, the bulletin board subunit sends a notify response frame to the original requesting control device. The notify response frame provides an alert to the original requesting control device that the specified access activity has been performed on the specified data structure by a competing control device. The original requesting control device can then review that accessing activity performed on the data structure and any modifications made to the data structure to determine whether further scheduling is required. Preferably, the access activity of the competing device and modifications made to the schedule entry are stored within the memory unit of the bulletin board subunit to provide a detailed history of the schedule entry.